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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/586,609

Filing Date: July 19, 2006

Appellant(s): FUJII ET AL.

Richard L. Chinn, Ph.D.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 6/17/10 appealing from the Office action mailed
3/29/10.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Application 10/587258

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-17

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS."

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New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

2004/0005398	Slaga	01-2004
GB 354,942	Stelkens	8-1931
EP 1186294	Suzuki	3-2002
3615666	Schlichter	10-1971
2430663	Behrman	11-1947
5558742	Kiefer	9-1996
JP 6-315434	Sosuke	11-1994

(9) Grounds of Rejection

The following grounds of rejection are applicable to the appealed claims:

1. **Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942) and Sosuke et al. (JP 6-315434 Translation).**

Regarding Claims 1 and 16: Slaga discloses a coffee composition having 0.6% chlorogenic acid [page.2, para 0023]] but does not explicitly disclose a coffee composition having less than .1 wt.% HHQ. However, Stelkens discloses a coffee composition where poisonous substances are removed by mixing and filtering with zinc chloride activated carbon [page 1, lines 12-26 and Page 1, lines 95-106]. Further, Sosuke discloses a coffee composition where "coffee poor

ingredients” are removed by filtering ground coffee beans through activated carbon near 30 -100 Å in size, coconut husk activated carbon near 10Å in size, or zeolite (an absorbent mineral mix) around 1-5 Å in size [0007, 0011, 0013, 0014].

At the time of the invention, it would have been obvious to one of ordinary skill in that art having the teachings of Slaga, Stelkens, and Sosuke before him or her to modify the coffee composition of Slaga to include a decreased level of HHQ because the treatment of coffee grounds with activated carbon at the desired particle size would have resulted in a coffee product having significantly reduced levels/removal of poisonous substances such as HHQ and to continue to reduce the levels of undesirable chemicals such as HHQ in coffee by using the activated carbon method, until the desired level/removal of the poisonous substance was obtained. Stelkens’ removal of poisonous and bitter substances is in line with Slaga’s art which seeks to provide for a more healthful coffee product which contains less toxic compounds [Slaga pg. 1, para 0018] and when used in combination with Sosuke as the desired particle size 30 -100 Å in size, coconut husk activated carbon near 10Å in size, or zeolite (an absorbent mineral mix) around 1-5 Å in size [0007, 0011, 0013, 0014], the coffee is treated using a very similar process as in the instant specification [See Application 10/586609 Example 7] and as such would have been obvious that a coffee composition having significantly reduced levels/removal of the poisonous substance HHQ would have been produced. Further, Sosuke’s removal of “coffee poor ingredients” seeks to provide for a more palatable coffee beverage [0010]. Stelkens’ and Sosuke’s failure to specifically recite the removal of the named substance HHQ does not negate the fact that a toxic/poisonous/DNA damaging substance such as HHQ would have been removed by the activated carbon at the desired particle size.

Further regarding the particle size of the carbon, the sizes are substantially close to that of the instant claims, one of ordinary skill would have expected compositions that are in such close proportions to those in prior art to be prima facie obvious and to have same properties. *Titanium Metals Corp.*, 227 USPQ 773 (CAFC 1985).

Regarding Claim 2: Slaga, Stelkens, and Sosuke disclose a coffee composition treated in a similar manner as described above and as such, it would have been obvious that the coffee composition would have similar properties when analyzed by HPLC as the coffee composition in the instant claim.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942) and Sosuke et al. (JP 6-315434 Translation) and as evidenced by Suzuki et al. (EP 1186294).

Regarding Claim 3: Slaga, Stelkens, and Sosuke disclose as discussed above but do not disclose the composition as hypertension alleviating. However, Suzuki teaches that chlorogenic acid is known to alleviate hypertension [para 0013].

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke and Suzuki before him or her to incorporate chlorogenic acid as a hypertension alleviating agent because in addition to chlorogenic acid's medicinal benefits to the gastrointestinal tract [Slaga page 1, para 0007], it is known that food or beverages associated with hypertension such as coffee can be supplemented with chlorogenic acid to inhibit or reduce hypertensive effects [Suzuki para 0033].

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942), Sosuke et al. (JP 6-315434 Translation), and Kiefer (US 5,588,742) and as evidenced by Suzuki et al (EP 1186294).

Regarding Claims 4 and 5: Slaga, Stelkens, and Sosuke disclose the coffee composition as discussed above, Suzuki teaches as discussed above but they do not disclose labeling the composition. However, Kiefer discloses labeling products to indicate their nutritional content [col. 1, lines 51-67].

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke, Suzuki and Kiefer before him or her to label the coffee product described by the prior art because it enables the manufacturer to communicate to the consumer ways in which the product is not only enjoyable as a beverage but how it is a healthier alternative to traditional coffee [Kiefer col. 4, lines 48-62, describing how labels impart information].

4. Claims 6, 7, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942), Sosuke et al. (JP 6-315434 Translation), and Schlichter (US 3,615,666).

Regarding Claims 6 and 17: Slaga, Stelkens, and Sosuke disclose a coffee composition treated in a similar manner as discussed above but do not disclose a soluble coffee composition. However, Schlichter discloses a soluble coffee composition [col. 1, lines 4-9].

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke, and Schlichter before him or her to modify the coffee composition to include a soluble coffee composition form because the consumer benefits from the ease of making a cup of coffee since making a drinkable beverage out of soluble coffee only requires the addition of hot water to dry coffee product in a cup/mug.

Regarding Claim 7: Slaga, Stelkens, Sosuke, and Schlichter disclose as discussed above and as such, it would have been obvious that the coffee composition would have similar properties when analyzed by HPLC as the coffee composition in the instant claim.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942), Sosuke et al. (JP 6-315434 Translation), and Schlichter (US 3,615,666), and as evidenced by Suzuki et al. (EP 1186294).

Regarding Claim 8: Slaga, Stelkens, Sosuke disclose the coffee composition as discussed above, Suzuki teaches that chlorogenic acid alleviates hypertension as discussed above and Schlichter teaches soluble coffee as disclosed above.

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke and Schlichter before him or her to modify the coffee composition to include a soluble coffee composition form because the consumer benefits from the ease of making a cup of coffee since making a drinkable beverage out of soluble coffee only requires the addition of hot water to dry coffee product in a cup/mug.

6. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942), Sosuke et al. (JP 6-315434 Translation), Schlichter (US 3,615,666), and Kiefer (US 5,588,742) and as evidenced by Suzuki et al (EP 1186294).

Regarding Claims 9 and 10: Slaga, Stelkens, Sosuke disclose the coffee composition as discussed above, Suzuki teaches as discussed above, Schlichter discloses soluble coffee as discussed above, and Kiefer discloses labeling products to indicate their nutritional content [col. 1, lines 51-67].

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke and Kiefer before him or her to label the coffee product described by the prior art because it enables the manufacturer to communicate to the

consumer ways in which the product is not only enjoyable as a beverage but how it is a healthier alternative to traditional coffee [Kiefer col. 4, lines 48-62, describing how labels impart information].

7. Claims 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942), Sosuke et al. (JP 6-315434 Translation), and Behrman (US 2,430,663).

Regarding Claims 11 and 15: Slaga, Stelkens, and Sosuke disclose the coffee composition as discussed above but does not disclose it as packaged. However, Behrman discloses a coffee composition in an oxygen impermeable package [col.1, lines 6-10, 14-17, 36-38].

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke and Behrman before him or her to modify the coffee composition of Stelkens to include an oxygen impermeable packaging mechanism because it maintains the qualities and flavors of coffee [Behrman col.1, lines 24-27].

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942), Sosuke et al. (JP 6-315434 Translation), and Behrman (US 2,430,663) and as evidenced by Suzuki et al (EP 1186294).

Regarding Claim 12: Slaga, Stelkens, Sosuke disclose as discussed, Suzuki teaches that chlorogenic acid alleviates hypertension as discussed above and Behrman teaches a packaged coffee product as disclosed above.

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke, Behrman and Suzuki to package a coffee product in order to make it available to consumers and to maintain the qualities and flavors of coffee [Behrman col.1, lines 24-27].

9. **Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slaga et al. (US 2004/0005398) in view of Stelkens (GB 354,942), and Behrman (US 2,430,663), and Kiefer (US 5,588,742) and as evidenced by Suzuki et al (EP 1186294).**

Regarding Claims 13 and 14: Slaga, Stelkens, Sosuke disclose a coffee product a discussed above, Suzuki discloses chlorogenic acid's antihypertensive effects as discussed above, Behrman discloses a packaged product as discussed above, and Kiefer discloses labeling the product as discussed above.

At the time of the invention, it would have been obvious to one of ordinary skill in the art having the teachings of Slaga, Stelkens, Sosuke, Suzuki, Behrman, and Kiefer before him or her to include on a packaged beverage where the beverage has antihypertensive properties to place a label on the package to indicate that it has hypertensive properties in order to communicate this feature to consumers.

(10) Response to Argument

Appellants' arguments with respect to claims 1-17 have been fully considered but they are not persuasive.

10. On pages 7-10, Appellants assert that the evidence of insufficient removal of HHQ given in 3 separate declarations was ignored. Examiner disagrees because in each Office Action subsequent to the submission of declarations regarding HHQ, Examiner acknowledged and addressed the declarations in relation to the prior art and evidence showing removal of HHQ.

The April 2009 declaration was addressed in the July 2009 Office Action. Examiner noted that only the parameters of Stelkens were duplicated and noted that since the rejection was based upon a combination of the Stelkens and Sosuke references, experiments involving the Sosuke carbon would have been more representative of adverse findings since Stelkens did not specifically

recite a particular type of activated carbon. Further, in the April 2009 declaration, Appellants' found HHQ present at .00112%, chlorogenic acid content .46549%, and the HHQ/chlorogenic ratio was .0024. All of these parameters fall within the limitations of claim 1. Therefore Examiner maintains that at least the Stelkens reference meets the HHQ limitations of the claims.

The September 2009 declaration was addressed in the December 2009 Office Action. Examiner noted that although the activated carbon referred to in Sosuke was incorporated, that Appellants did not maintain the coffee and carbon exposure time, which Examiner pointed out would have been an important variable in extracting a desirable amount of substances.

The March 2010 declaration was addressed in the March 2010 Advisory Action. Examiner acknowledged that the Appellants extended the time for extraction as in Stelkens in combination with the activated coconut husk of Sosuke but maintained that it would have been obvious to treat the activated carbon until a desired amount of poisonous substances were removed.

Furthermore, Appellants' declarations have shown what is considered to be *expected* results and support variability of levels of extraction of HHQ based upon variations in parameters. As discussed in the previous Office Actions, the various declarations give evidence that time and carbon type have a considerable effect on the level of extraction of substances from ground coffee. The April 2009 declaration and the March 2010 declaration both reflect a 5 minute activated carbon exposure time and also result in a lower amount of HHQ being present in the coffee product (more removal of the HHQ); as contrasted with the July 2009 declaration which has the activated carbon and coffee reacted for 3 minutes and results in HHQ present in a coffee product in an amount higher (less removal of HHQ) than in the April 2009 and March 2010 declarations.

11. Appellants' declarations appear to support the position of the Examiner, that given the disclosures of the prior art references, it would have been obvious that contacting and reacting

activated carbon with ground coffee would have resulted in the reduction HHQ levels in contrast with contacting ground coffee with non-activated carbon. Further, based upon the combined teachings of Sosuke and Stelkens it would have been obvious to treat coffee with coconut husk activated carbon until a desired amount of poisonous substances are removed. Further, variables such as time are well known in the art and it would have been obvious to one of ordinary skill in the art to lengthen extraction time to remove larger amounts of a target substance.

12. On pages 10-11, Appellants argue that because HHQ was not specifically named as a poisonous substance in the references, there would have been no motivation to remove HHQ from coffee. Examiner maintains that it is not a far stretch to refer to HHQ as a poisonous substance in that it has toxic effects on the body such as the cleavage of DNA strands. Examiner also disagrees because regardless of how Appellants characterizes substances extracted by the activated carbon method, Appellants are not entitled to a patent where the product is an old product and the patentability is based upon a new characteristic of an old product.

13. On pages 11 -16, Appellants assert that the Behrman, Suzuki, Schlichter, and Kiefer references do not cure the deficiencies in the rejection. Examiner maintains that the references were not used to meet the limitations regarding HHQ content, which were met by the Stelkens and Sosuke disclosures, but were disclosed to meet the limitations of the dependent claims.

14. Further on page 12, Appellants assert that the Suzuki reference does not disclose a coffee composition containing chlorogenic acid and having an antihypertensive effect. Examiner disagrees and maintains that the Suzuki reference discloses chlorogenic acid for the alleviation of hypertension and further discloses that chlorogenic acid can be added to coffee for this effect [pg 4. para 0025 and 0029].

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(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/F. K./

Examiner, Art Unit 1784

Conferees:

/Jennifer C. McNeil/
Supervisory Patent Examiner, Art Unit 1784

/Keith D. Hendricks/

Supervisory Patent Examiner, Art Unit 1781